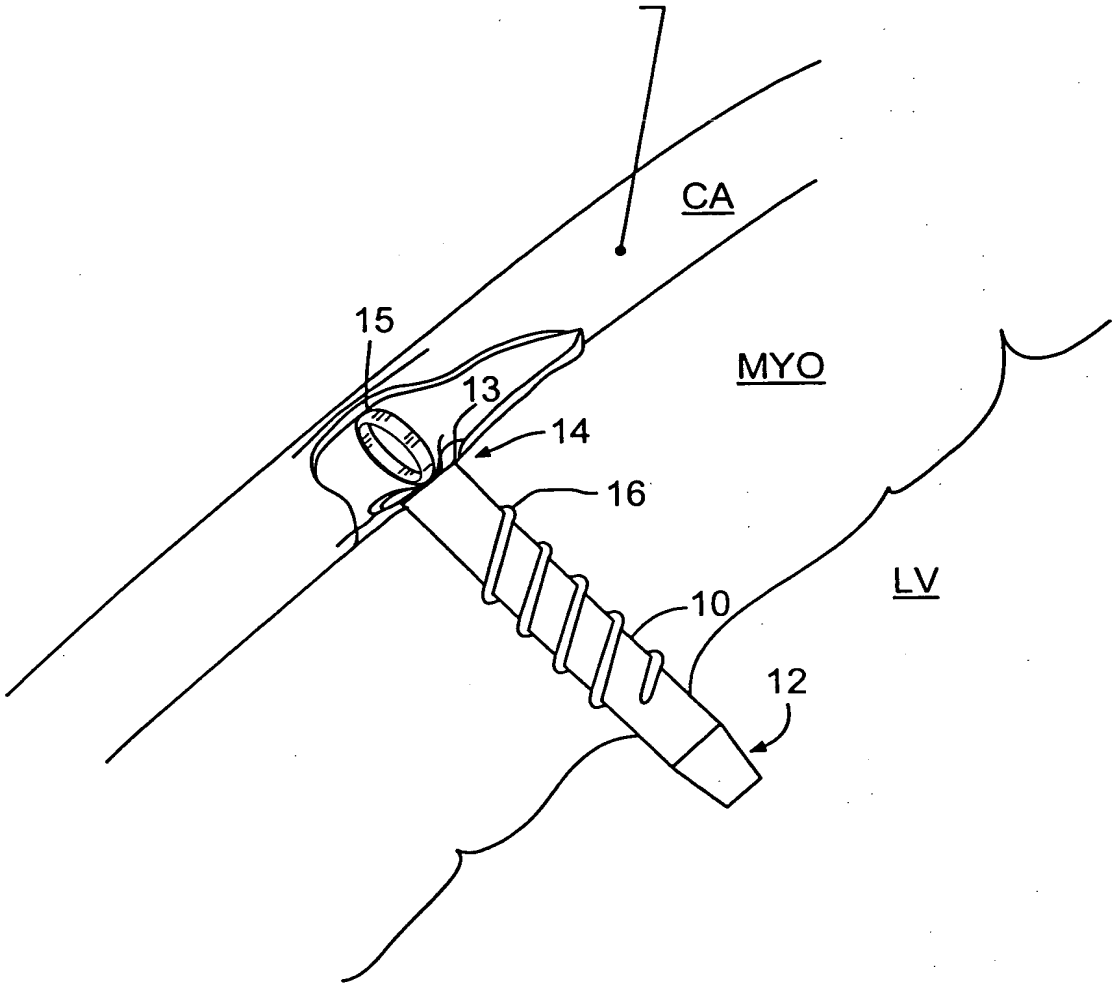

FIG. 1

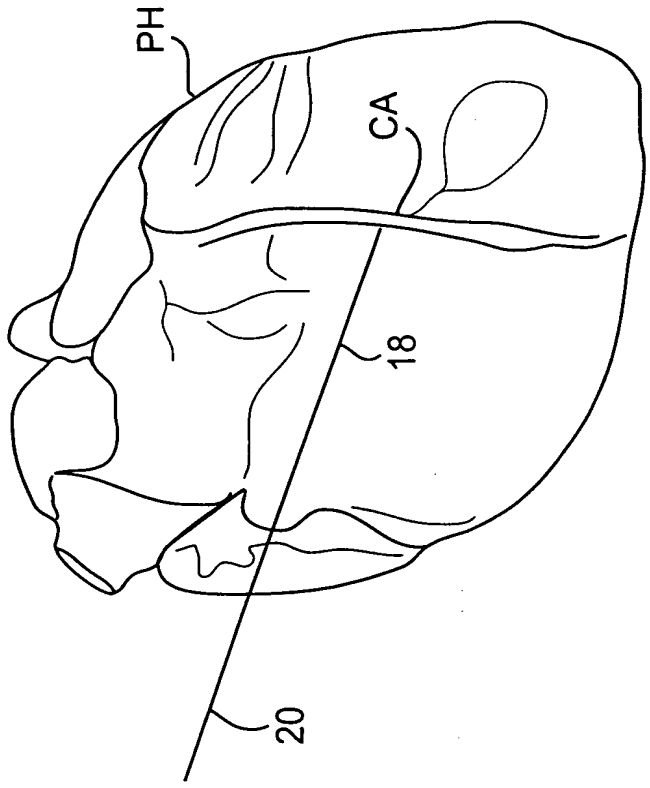

FIG. 2

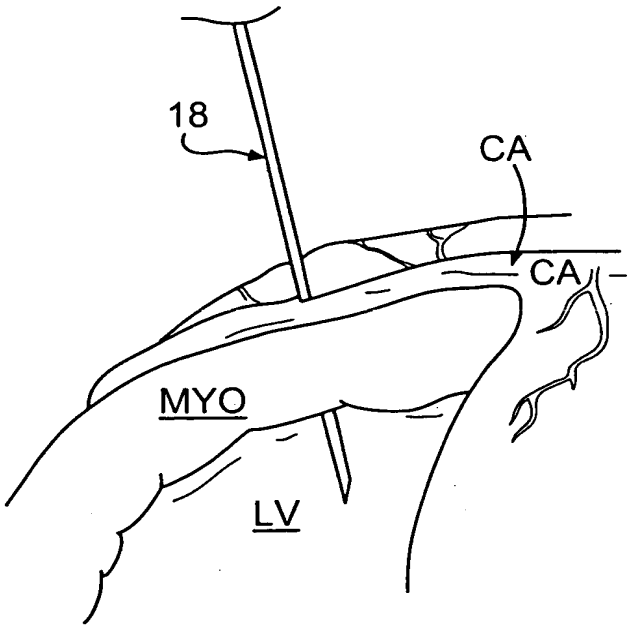

FIG. 2A

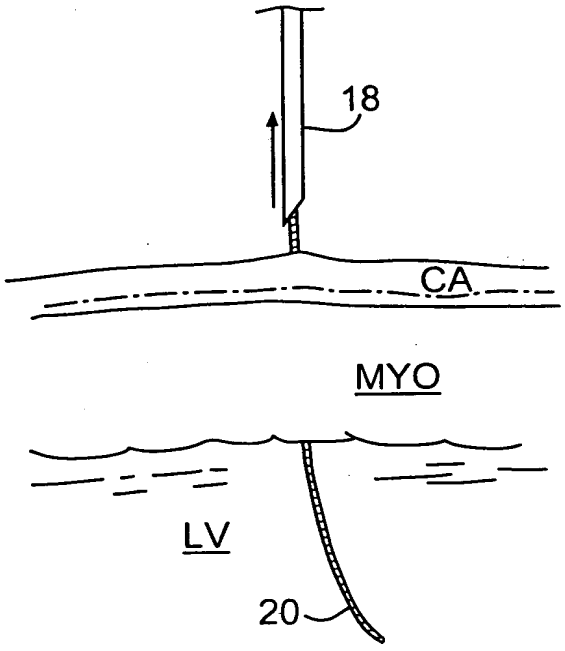

FIG. 2B

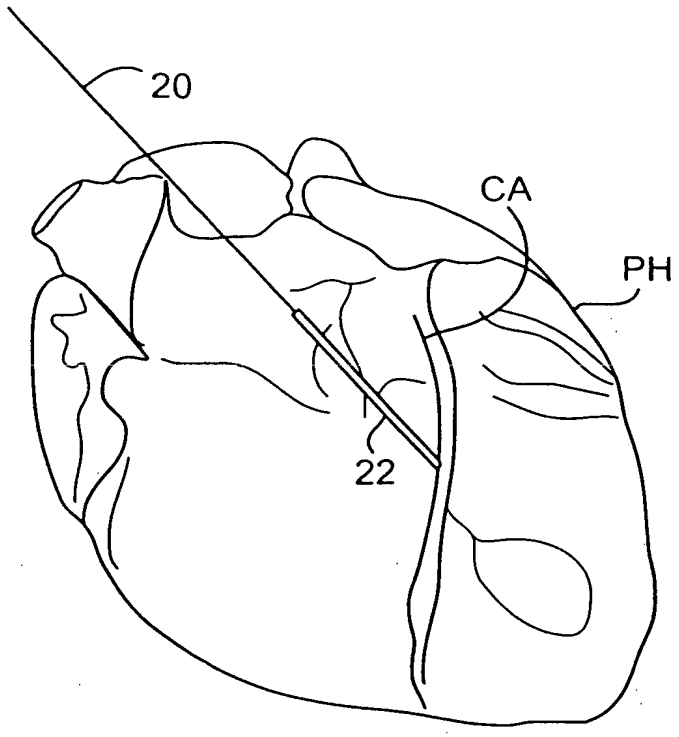

FIG. 3

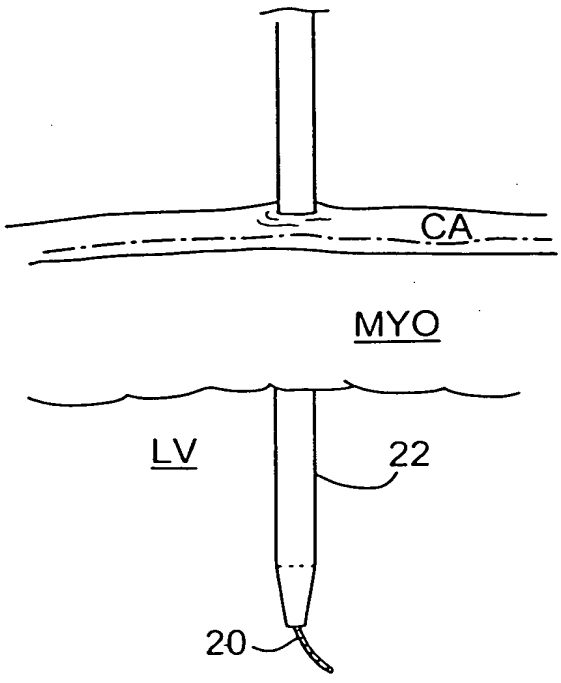

FIG. 3A

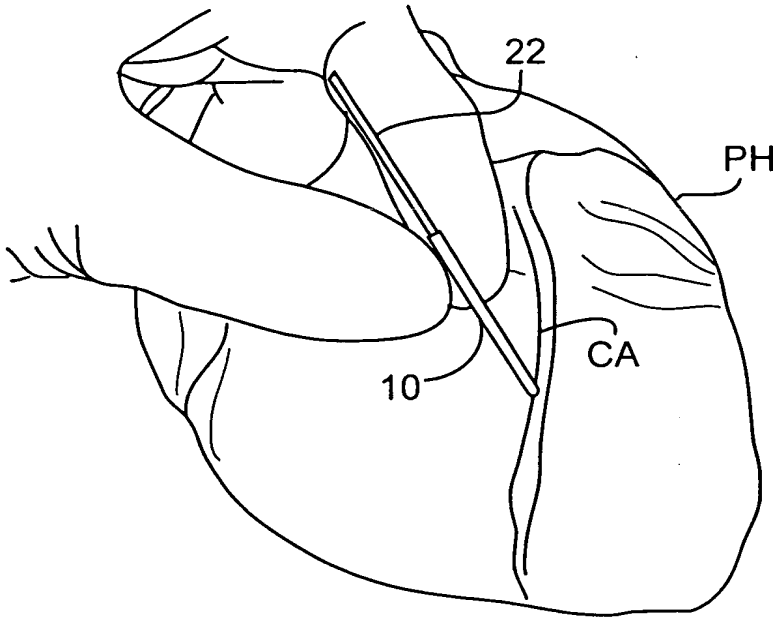

FIG. 4

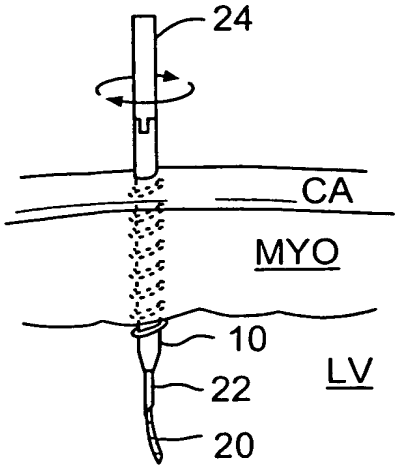

FIG. 4A

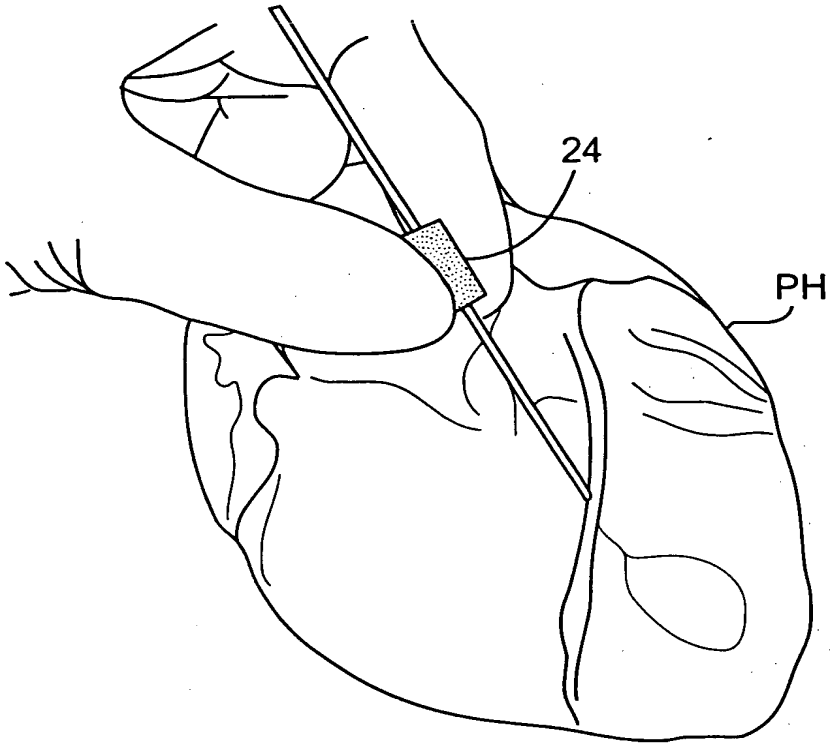

FIG. 5

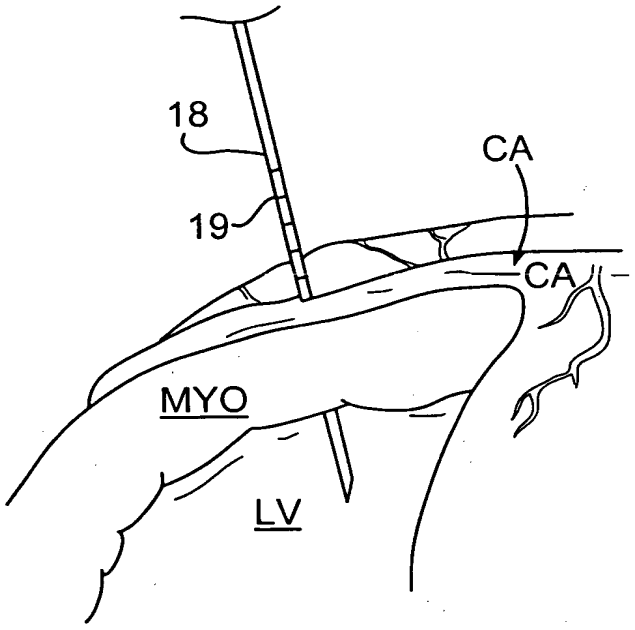

FIG. 5A

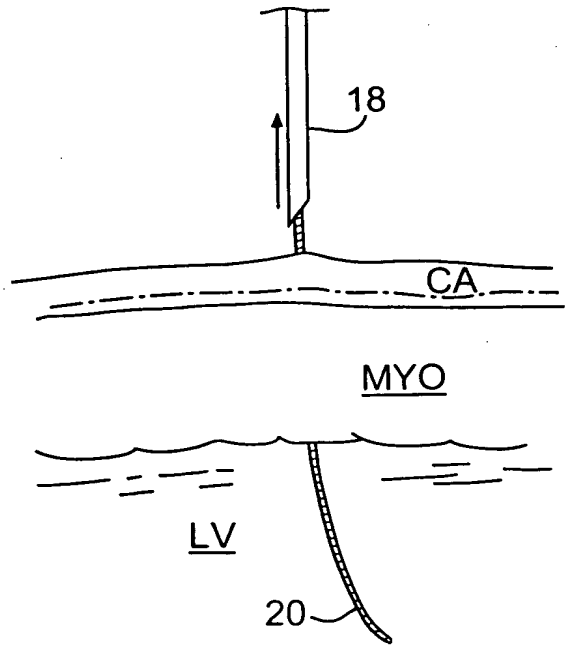

FIG. 5B

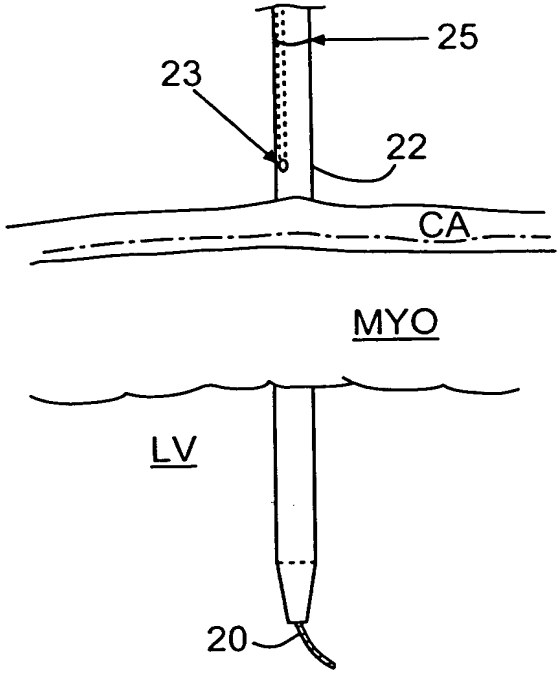

FIG. 5C

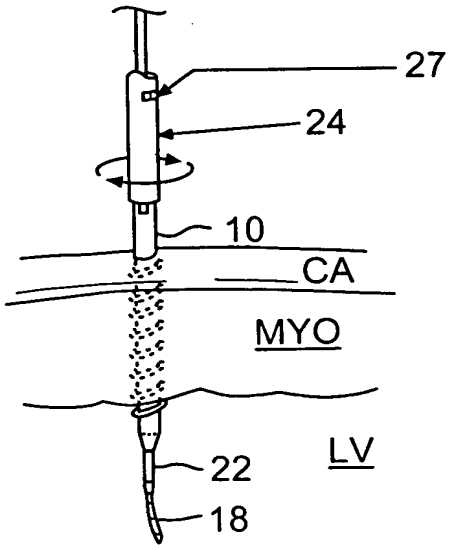

FIG. 5D

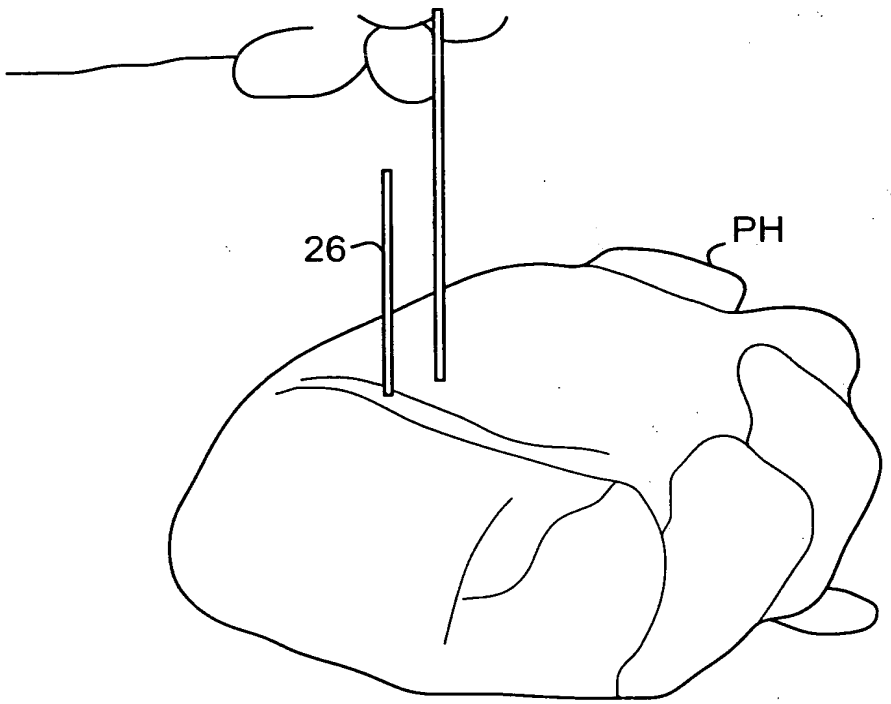

FIG. 6

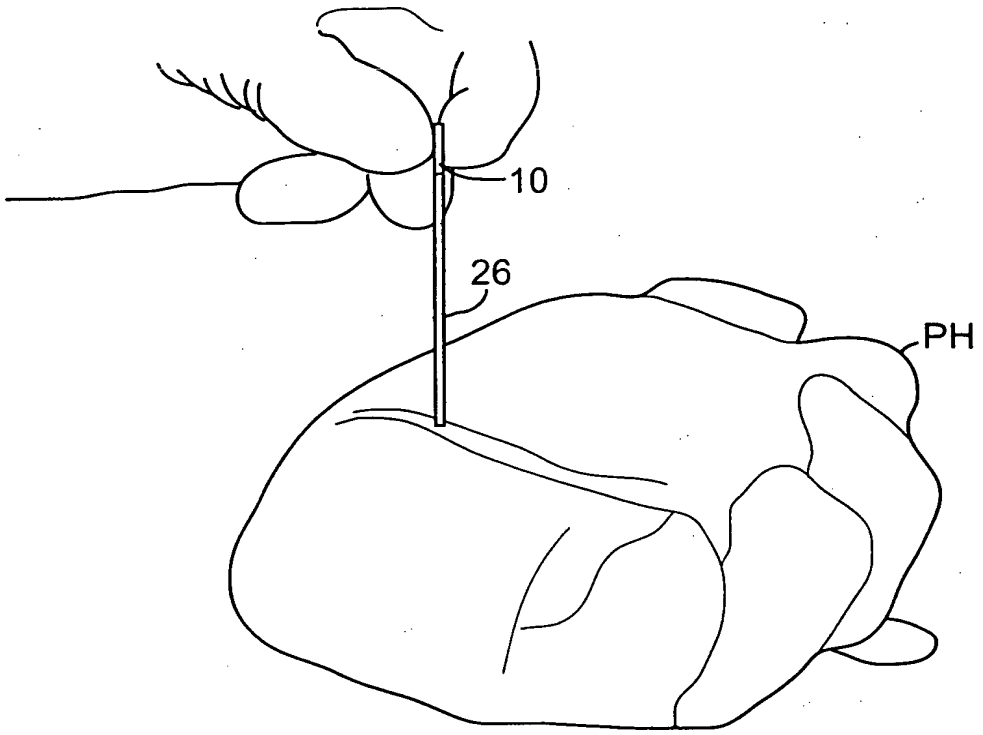

FIG. 7A

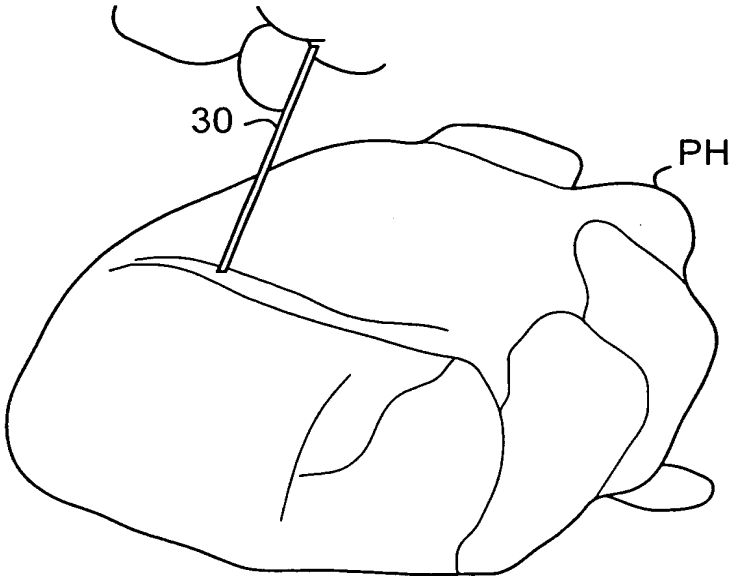

FIG. 8

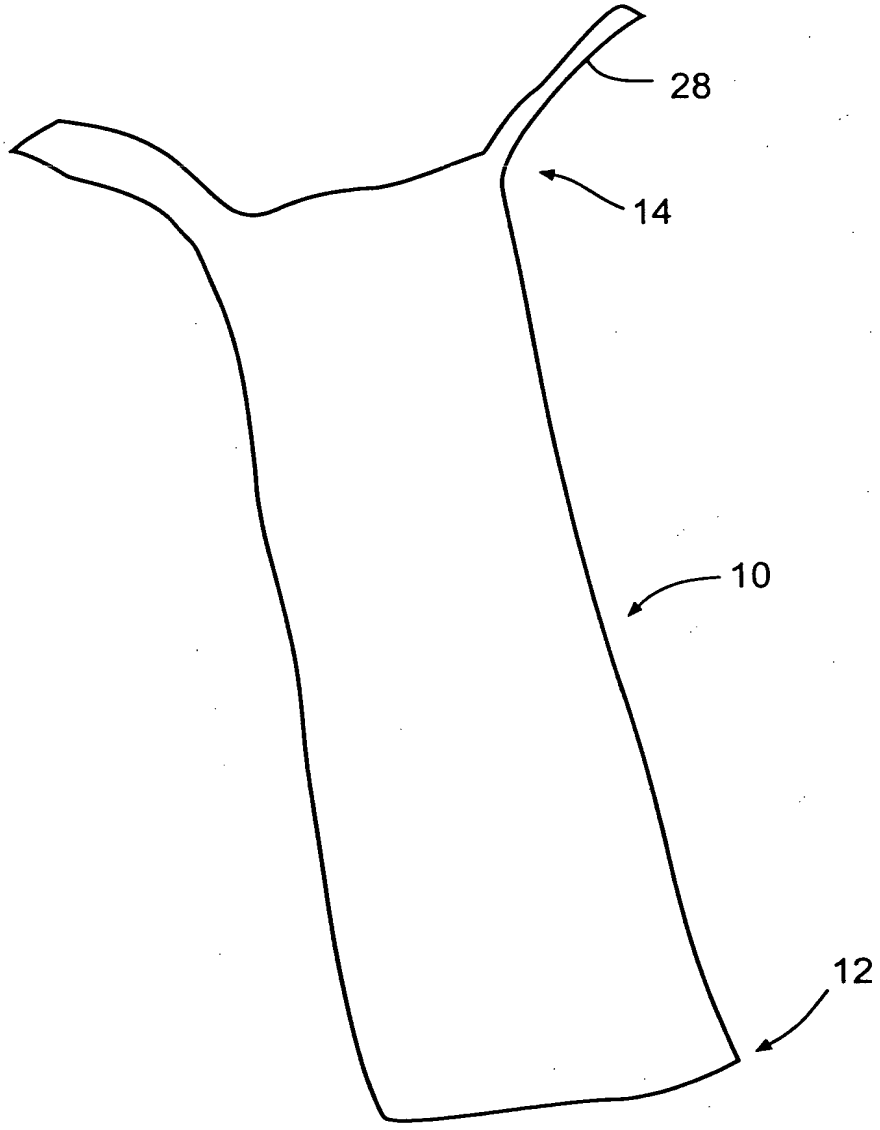

FIG. 7B

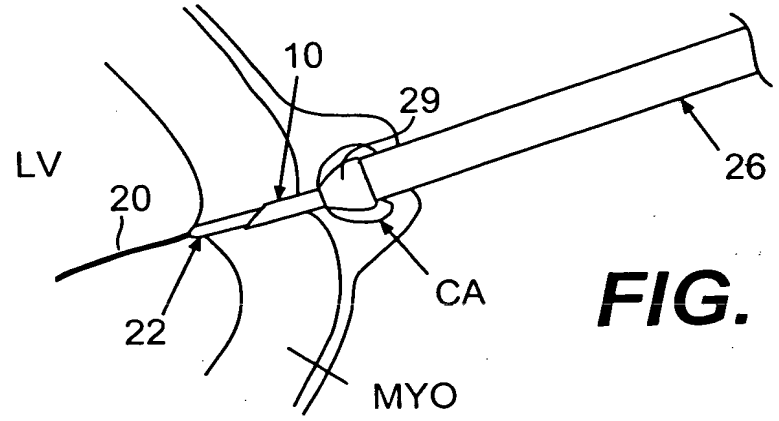

FIG. 8A

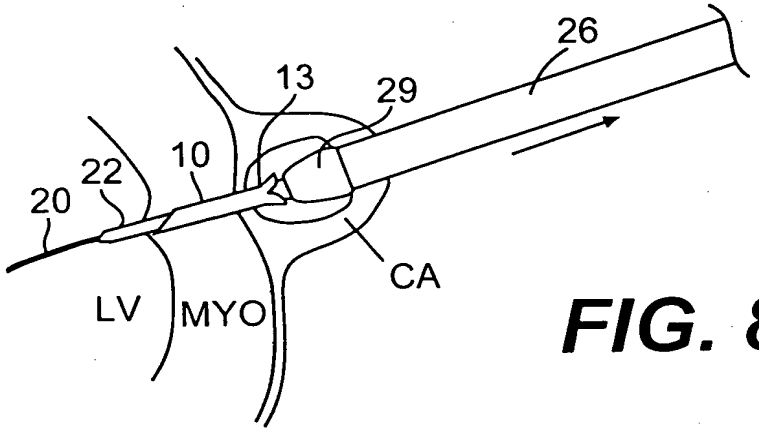

FIG. 8B

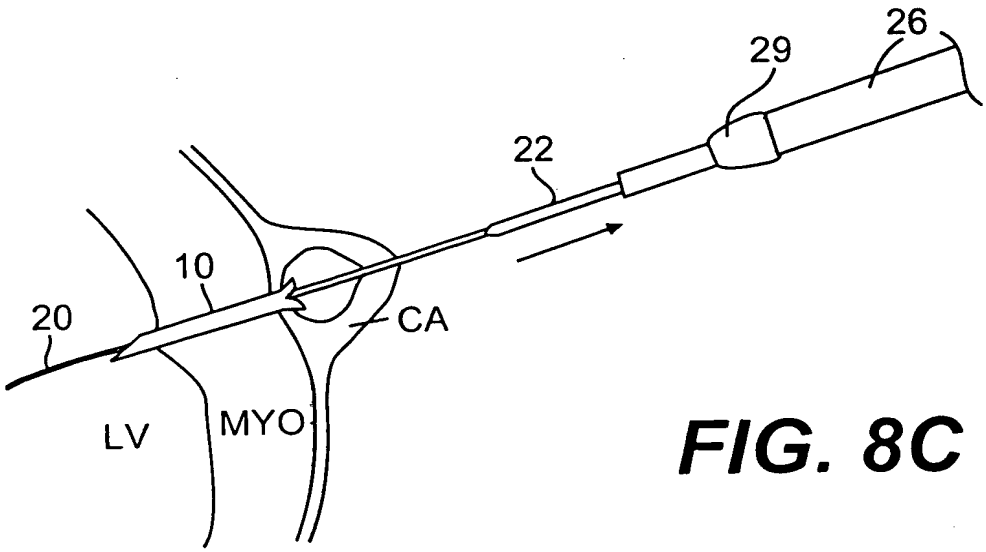

FIG. 8C

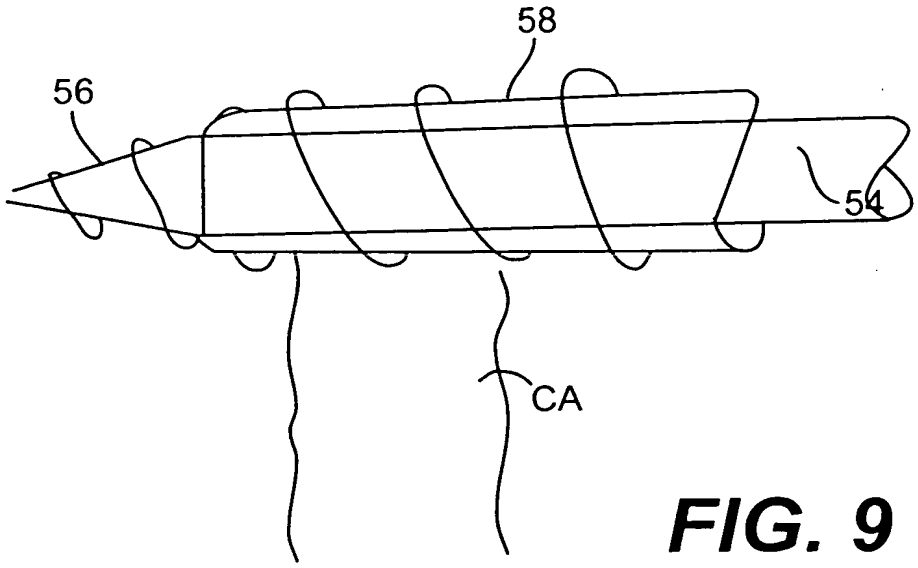

FIG. 9

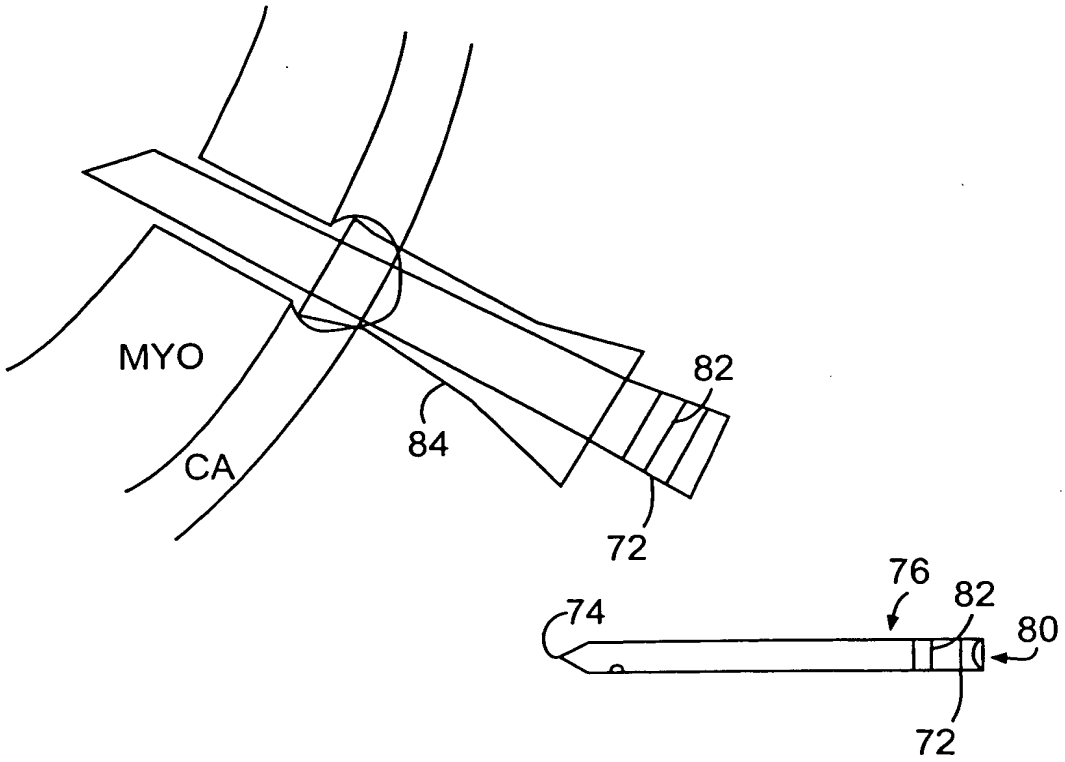

FIG. 10

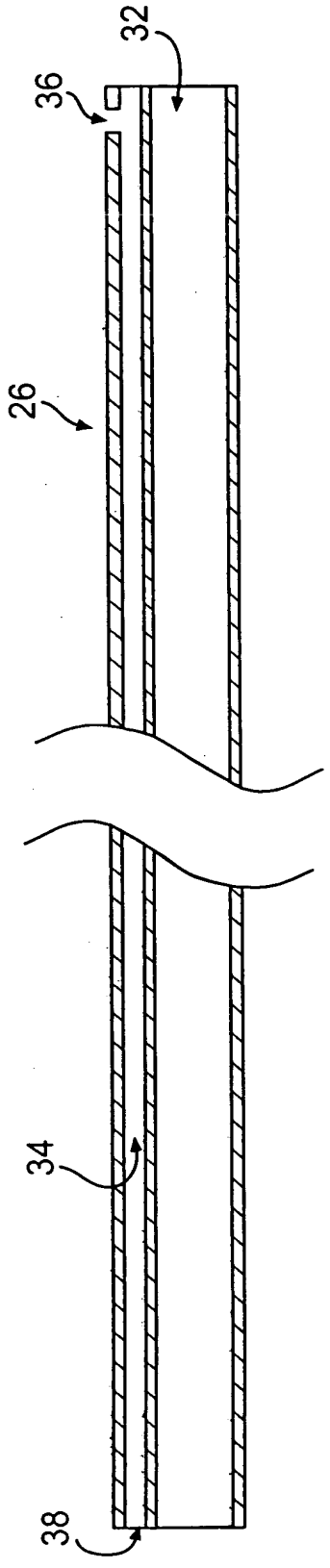

FIG. 11

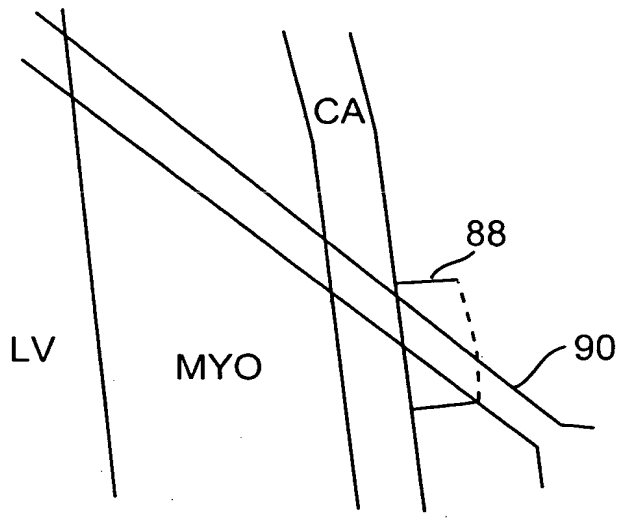

FIG. 12A

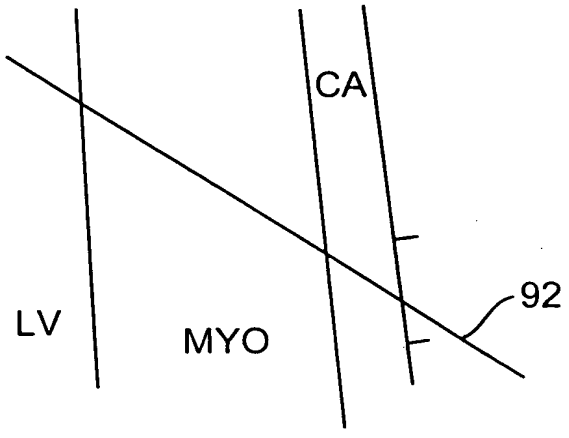

FIG. 12B

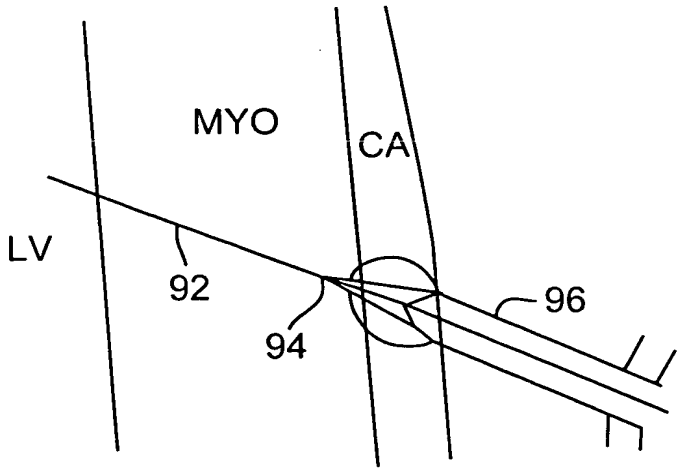

FIG. 12C

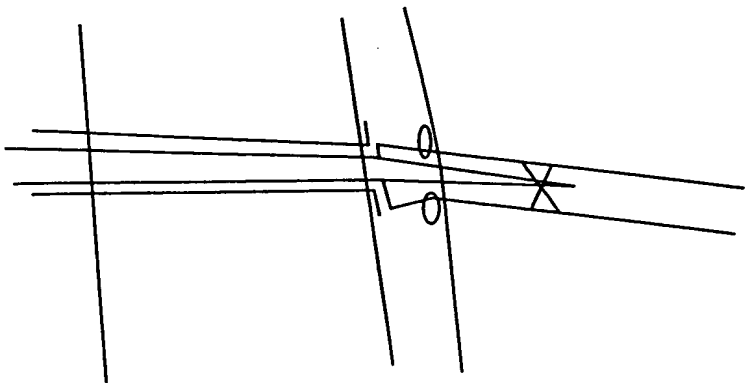

FIG. 12D

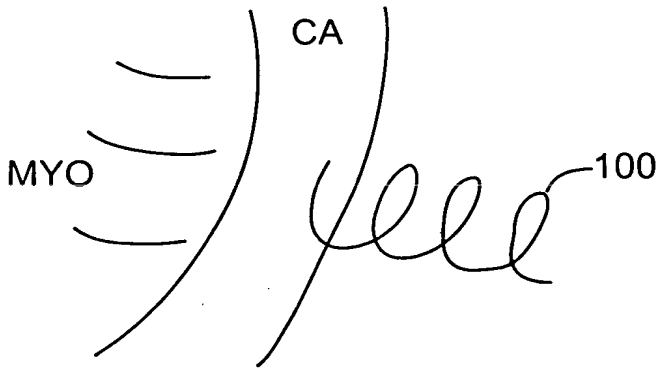

FIG. 13A

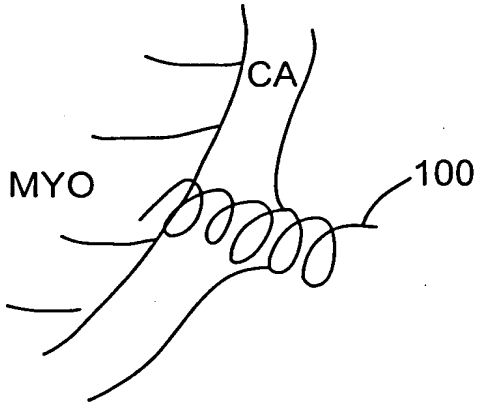

FIG. 13B

PULL OUT FORCES OF VARIOUS THREADED SCREWS

DESCRIPTION	THREADS PER INCH	HEIGHT OF THREADS	SHAFT DIAMETER	AVERAGE PULL OUT FORCE (LBS)
DRYWALL SCREW	15	0.023	0.093	1.80
DRYWALL SCREW	15	0.024	0.088	1.80
DRYWALL SCREW	8	0.028	0.122	1.75
HEX BOLT	30	0.015	0.132	<0.250
SHEET METAL SCREW	10	0.032	0.156	3.00

FIG. 14

PULL OUT FORCES OF BARBED SHUNTS

DESCRIPTION (ALL BARBS ARE ANNULAR)	NUMBER OF BARBS	BARB SPACING	BARB WIDTH (IN)	BARB DIAMETER	BARB HEIGHT (IN)	AVERAGE REMOVAL FORCE (LBS)
ANGLED BARBS FACING ONE DIRECTION	3	0.140	0.040	0.110	0.0065	0.38
CONTINUOUS ANGLED BARBS, NO SPACING BETWEEN EACH ONE	8	NONE	0.068	0.109	0.0055	0.42
ANGLED BARBS FACING ONE DIRECTION, FLANGE AT ONE END (TESTED IN DIFFERENT HEART)	6	NONE	0.085	0.108	0.0065	0.13
FLAT BARBS	4	0.062	0.049	0.108	0.0060	0.29
FLAT BARBS	2	0.140	0.054	0.110	0.0065	0.25
STENT ANGLED AT ONE END, FLAT BARBS, FLANGE AT OPPOSITE END (TESTED IN DIFFERENT HEART)	3	0.094	0.097	0.109	0.0035	<.13
CONTROL SAMPLE	NONE	NONE	NONE	NONE	NONE	~0
*ALL INSERTION FORCES ARE APPROXIMATELY 1.0 LB						
*THE APPROXIMATE WALL THICKNESS OF THE LEFT VENTRICLE IS .67-.84 IN, NEAR THE APEX OF THE HEART IT IS APPROXIMATELY .51 IN						

FIG. 15

PULL THROUGH FORCES FOR FLANGES THROUGH ARTERIAL WALL

DESCRIPTION	WIDTH (IN)	LENGTH (IN)	AVERAGE PULL THROUGH FORCE (LBS)
SHALLOW FLANGE, BARBED STENT, NO SPACES BETWEEN EACH BARB	0.114	0.169	0.50
SHALLOW FLANGE, FLAT BARBED STENT, OPPOSITE END ANGLED	0.097	0.132	0.50
DEEP FLANGE, FLAT STENT	0.108	0.159	1.00
VERY LONG AND DEEP FLANGE, FLAT STENT	0.109	0.195	1.50
FLAT STENT WITH ANGLED END, FLANGE TUBE SHAPED WITH OPENING IN THE MIDDLE	0.094	0.182	0.75
CIRCULAR FLANGE, FLAT STENT		0.169 R	0.75

FIG. 16